## 13.04.370: CONTROL OF BACKFLOW AND CROSS CONNECTIONS:

# A. Responsibility:

- 1. City Responsibility:
  - a. The city shall operate the drinking water distribution system;
  - b. Drinking water system surveys/inspections of the consumer's water distribution system(s) shall be conducted or caused to be conducted by individuals deemed qualified by and representing the city. Survey records shall indicate compliance with the aforementioned health and safety standards. All such records will be maintained by the city;
  - c. The city shall notify in writing, all consumers of the need for the periodic system survey to insure compliance with existing applicable minimum health and safety standards;
  - d. Selection of an approved backflow prevention assembly for containment control required at the service connection shall be determined from the results of the system survey;
- 2. Consumer Responsibility:
  - a. To comply with this chapter as a term and condition of supply and consumer's acceptance of service is and shall constitute admittance of his or her awareness;
  - b. It shall be the responsibility of the consumer to purchase, install or cause to be installed, test and maintain any backflow prevention device/assembly required to comply with this chapter;
- 3. Plumbing Inspector Responsibility:
  - a. The plumbing inspector's responsibility to enforce the applicable sections of the plumbing code begins at the discharge side of the water service valve located inside the building or structure;
  - b. The plumbing inspector will review all plans to ensure that unprotected cross connections are not an integral part of the consumer's water system. If a cross connection cannot be eliminated, it must be protected by the installation of an air gap or an approved backflow prevention device/assembly, in accordance with the plumbing code;
  - c. Water vacating the drinking water supply must do so via approved air gap or approved mechanical backflow prevention assembly, properly installed and in accordance with the plumbing code;
- 4. Water Superintendent Responsibility:

- a. The public services department's responsibility to enforce the applicable sections of this chapter begins at the supply side of the water service valve located inside the building or structure;
- 5. Certified Backflow Assembly Technician, Surveyor Or Repair Person Responsibilities:
  - a. Whether employed by the consumer or utility to survey, test, repair or maintain backflow prevention assemblies, the certified backflow technicians, surveyors or repair persons will have the following responsibilities:
    - (1) Ensuring acceptable testing equipment and procedures are used for testing, repairing or overhauling backflow prevention assemblies;
    - (2) Make reports of such testing and/or repair to the consumer, water purveyor, and the state department of health, bureau of drinking water/sanitation, and within the time frames prescribed by the bureau of drinking water/sanitation;
    - (3) The report shall include the list of materials or replacement parts used;
    - (4) Ensuring replacement parts are equal in quality to parts originally supplied by the manufacturer or the assembly being repaired;
    - (5) Not changing the design, material or operational characteristics of the assembly during testing, repair or maintenance;
    - (6) A certified technician approved by the city shall perform all tests of the mechanical devices/assemblies and be responsible for the competence and accuracy of all tests and reports;
    - (7) Ensuring his or her license is current, the testing equipment being used is acceptable to the city and state, and is in proper operating condition;
    - (8) Be equipped with, and be competent to use, all necessary tools, gauges, and other equipment necessary to properly test, and maintain backflow prevention assemblies;
    - (9) The certified, city approved technician conducting the test must tag each double check valve, pressure vacuum breaker, reduced pressure backflow assembly and high hazard air gap, showing the serial number, date tested and by whom. The technician's license number must also be on this tag;
  - b. In the case of a consumer requiring a commercially available technician, any certified, city approved technician is authorized to make the test and report the results of that test to the consumer, water purveyor and the bureau of drinking water/sanitation. If such a commercially tested assembly is in need of repair, a licensed plumber shall make the actual repair.

#### B. Definitions:

APPROVED BACKFLOW ASSEMBLY: Accepted by the Utah department of health, bureau of water/sanitation, as meeting an applicable specification or as suitable for the proposed use.

AUXILIARY WATER SUPPLY: Any water supply on or available to the premises other than the purveyor's public water supply will be considered as an "auxiliary water supply". These auxiliary waters may include water from another purveyor's public potable water supply or any natural source such as a well, spring, river, stream, ditch, secondary water system, etc., or "used waters" or "industrial fluids". These waters may be contaminated or polluted or they may be objectionable and constitute an unacceptable water source over which the water purveyor does not have authority for sanitary control.

BACK PRESSURE: The flow of water or other liquids, mixtures, or substances under pressure into the feeding distribution pipes of a potable water supply system from any source other than the intended source.

BACK SIPHONAGE: The flow of water or other liquids, mixtures, or substances into the distribution pipes of a potable water supply system from any source other than the intended source, caused by the reduction of pressure in the potable water supply system.

BACKFLOW: The reversal of the normal flow of water caused by either back pressure or back siphonage.

BACKFLOW PREVENTION ASSEMBLY: An assembly or means designed to prevent backflow. Specifications for backflow prevention assemblies are contained within the Utah plumbing code, and the cross connection control program for Utah.

CONTAMINATION: A degradation of the quality of the potable water supply by sewage, industrial fluids or waste liquids, auxiliary water supply, compounds or other materials.

CROSS CONNECTION: Any physical connection or arrangement of piping or fixtures which may allow nonpotable water or industrial fluids or other material of questionable quality to come in contact with potable water inside a distribution system. This would include any temporary connections, such as swing connections, removable sections, four-way plug valves, spools, dummy sections of pipe, swivel or change over devices or sliding multiport tubes or other plumbing arrangements.

CROSS CONNECTION; CONTAINMENT: The installation of an approved backflow assembly at the water service connection to any customer's premises where it is physically and economically infeasible to find and permanently eliminate or control all actual or potential cross connections within the customer's water system; or, it shall mean the installation of an approved backflow prevention assembly on the service line leading to and supplying a portion of a customer's water system where there are actual or potential cross connections which cannot be effectively eliminated or controlled at the point of the cross connection (isolation).

CROSS CONNECTION; CONTROLLED: A connection between a potable water system and a nonpotable water system with an approved backflow prevention assembly properly installed and

maintained so that it will continuously afford the protection commensurate with the degree of hazard.

SERVICE CONNECTION: The water meter yoke assembly with the city being responsible up to the discharging piping from the meter yoke.

WATER PURVEYOR: The public services department of the city is vested with the authority and responsibility for the implementation of an effective cross connection control program and for the enforcement of the provisions of this chapter.

## C. Requirements:

### 1. Policy:

- a. No water service connection to any premises shall be installed or maintained by the water purveyor unless the water supply is protected as required by state laws, regulations, codes and this chapter. Service of water to a consumer found to be in violation of this chapter shall be discontinued by the water purveyor after due process of written notification of violation and an appropriate time suspense for voluntary compliance, if:
  - (1) A backflow prevention assembly required by this chapter for control of backflow and cross connections is not installed, tested and maintained; or
  - (2) If it is found that a backflow prevention assembly has been removed or bypassed; or
  - (3) If an unprotected cross connection exists on the premises; or
  - (4) If the periodic system survey has not been conducted.

Service will not be restored until such conditions or defects are corrected to the requirement of this chapter and to the satisfaction of the water purveyor;

- b. The customer's system shall be open for inspection at all reasonable times to authorized representatives of the water purveyor to determine whether cross connections or other structural or sanitary hazards, including violation of this chapter exist, and to audit the results of the required survey;
- c. Whenever the public water purveyor deems a service connection's water usage contributes a sufficient hazard to the water supply or to the city water system, an approved backflow prevention assembly shall be installed on the service line of the identified consumer's water system at or near the property line, or immediately inside the building being served; but, in all cases, before the first branch line leading off the service line;
- d. The type of protective assembly required under subsection C1c of this section, shall depend upon the degree of hazard which exists at the point of cross connection (whether direct or indirect), applicable to local and state requirements or resulting from the required survey;

- e. All presently installed backflow prevention assemblies which do not meet the requirements of this section but were approved assemblies for the purposes described herein at the time of installation and which have been properly maintained, shall, except for the inspection and maintenance requirements under subsection C1f of this section, be excluded from the requirements of these rules so long as the water purveyor is assured that they will satisfactorily protect the public water system. Whenever the existing assembly is moved from the present location or, requires more than minimum maintenance or, when the water purveyor finds that the operation or maintenance of this assembly constitutes a hazard to health, the unit shall be replaced by an approved backflow prevention assembly meeting the local and state requirements;
- f. It shall be the responsibility of the consumer at any premises where backflow prevention assemblies are installed to have certified surveys/inspections, and operational tests made at least once per year at the consumer's expense. In those instances where the water purveyor deems the hazard to be great, he or she may require certified surveys/inspections and tests at more frequent intervals. It shall be the duty of the water purveyor to see that these tests are made according to the standards set forth by the state department of health, bureau of drinking water/sanitation;
- g. All backflow prevention assemblies shall be tested within ten (10) working days of initial installation. The owner shall notify the city within twenty four (24) hours of installation of the backflow prevention assembly;
- h. No backflow prevention assembly shall be installed so as to create a safety hazard. Example: Installed over an electrical panel, steam pipes, boilers, pits, or above ceiling level;
- 2. If violations of this chapter exist or if there has not been any corrective action taken by the consumer within ten (10) days of the written notification of deficiencies noted within the survey, then the water purveyor shall deny or immediately discontinue service to the premises by providing a physical break in the service line until the customer has corrected the condition in conformance with the state and city statutes relating to plumbing, safe drinking water supplies and the regulations adopted pursuant thereto. (Ord. 2000-28)